

Remarks

Examiner Goudreau is thanked for the thorough Office Action and for the Notice of Non-Compliant Amendment mailed February 23, 2004.

In the Claims

In Response to the Notice of Non-Compliant Amendment mailed February 23, 2004: (1) claims 2 to 5, 8 to 10, 13 to 15, 22, 28, 34, 38 and 39 have now been correctly noted as "previously presented;" (2) Please cancel non-elected, withdrawn claims 19, 25 and 31. Applicants reserve the right to file a Divisional Application for the non-elected claims 19, 25 and 31 at a later date. It is noted that claims 19, 25 and 31 are now noted as "canceled" with no text being required.

Independent claim 35, lines 10 to 13; independent claim 36, lines 14 to 16; and independent claim 37, lines 13 to 15; have each been amended to include the limitation of employing "*a silicon containing seasoning polymer layer forming gas*" in addition to "a bromine and/or chlorine containing etchant gas" employed in the waferless seasoning method. Support for this amendment is found at page 13, lines 3 to 21 of the specification as filed.

Claims 40, 41 and 42 are new and have been added to better encompass the full scope and breadth of the invention notwithstanding the patentability of the original claims. Claims 40, 41 and 42 correspond to currently amended respective claims 35, 36 and 37 absent the parameters when using an eight inch diameter substrate in the step (2) etching of the first polycrystalline silicon layer to form the etched first polycrystalline silicon layer.

Claims 19, 25 and 31 have been noted as being withdrawn from consideration in accordance with the response to the Restriction Requirement mailed May 21, 2002 (as previously noted in the response to the May 20, 2003 Final Office Action). As noted above, claims 19, 25 and 31 have been canceled with reserved right. Claims 1, 6, 7, 11, 12, 16 to 18, 20, 23, 24, 26, 29, 30 and 32 having previously been canceled.

Claim Rejections

Applicants note the sub silentio withdrawal of the allowance of claims 35, 36 and 37 (and thus depending claims 2 to 5, 8 to 10, 13 to 15, 22, 28, 34, 38 and 39) made in the May 20, 2003 Final Office Action.

The Rejection Of Claims 5, 10 And 15 Under 35 U.S.C. §112, Second Paragraph, as Being Indefinite for Failing to Particularly Point Out and Distinctly Claim the Subject Matter Which Applicant Regards as the Invention

The rejection of claims 5, 10 and 15 under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention is acknowledged.

Specifically, the Examiner states “The seasoning polymer layers which applicant recites as being formed in claims 5, 10 and 15 conflicts with the claims upon which these claims depend. (i.e. – The independent claims [35, 36 and 37] recite the usage of a wafer less seasoning process. A Si based polymeric residue would not form on the interior surfaces of the plasma etcher after the seasoning step is conducted in the process claimed above.)”

The current amendments to independent claims 35 to 37 are believed to overcome this 35 U.S.C. §112, second paragraph, to claims 5, 10 and 15.

The Rejection Of Claims 2 To 5, 8 To 10, 13 To 15, 19, 22, 25, 28, 31 And 34 To 39 Under 35 U.S.C. §103(a) as Being Unpatentable Over Chen et al. (U.S. Patent No. 6,325,948) In View Of Su et al. (“Deep trench process performance enhancements in an MERIE reactor,” Applied Materials, pp 55 to 67, 1992)

The rejection of claims 2 To 5, 8 To 10, 13 To 15, 19, 22, 25, 28, 31 And 34 To 39 under 35 U.S.C. §103(a) as being unpatentable over Chen et al. (U.S. Patent No. 6,325,948) (the '948 Chen Patent) in view of Su et al. ("Deep trench process performance enhancements in an MERIE reactor," Applied Materials, pp 55 to 67, 1992) (the Su Article) is acknowledged.

It is noted that claims 19, 25 and 31 have previously been withdrawn from consideration as noted in Applicant's previous response to the May 20, 2003 Final Office Action. Claims 19, 25 and 31 were withdrawn from consideration in accordance with the response to the Restriction Requirement mailed May 21, 2002. (Applicant notes that it has filed a continuation application directed to the substance of claims 19, 25 and 31 rewritten in independent form.)

Independent claims 35, 36 and 37 (as do new independent claims 40, 41 and 42) distinguish over the '948 Chen Patent in view of the Su Article under §103(a) because, inter alia, this combination of references does not teach or disclose the combination of limitations including the newly added limitation of employing "a silicon containing seasoning polymer layer forming gas" in addition to "a bromine and/or chlorine containing etchant gas" employed in the waferless seasoning method and neither Chen nor Su form a polymer layer.

Further: the prior art lack a suggestion that Chen should be modified in a manner required to meet the claims; the Examiner has made a strained interpretation of the references that could be made only by hindsight; the Examiner has not presented a convincing line of reasoning as to why the claimed subject matter as a whole, including its differences over the prior art, would have been obvious; and the prior art references do not contain any suggestions (express or implied) that they be combined, or that they be combined in the manner suggested.

Claims 2 to 5, 8, 22, 38 and 39 depend from independent claim 35; claims 9, 10 and 28 depend from independent claim 36; and claims 13 to 15 and 34 depend from independent claim 37; and are believed to distinguish over the combination for the reasons previously cited.

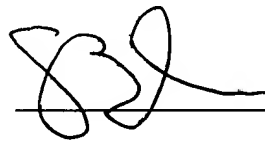
Therefore claims 2 to 5, 8 to 10, 13 to 15, 22, 28, 34 to 42 are submitted to be allowable over the cited references and reconsideration and allowance are respectfully solicited.

CONCLUSION

In conclusion, reconsideration and withdrawal of the rejections are respectively requested. Allowance of all claims is requested. Issuance of the application is requested.

It is requested that the Examiner telephone Stephen G. Stanton, Esq. (#35,690) at (610) 296 - 5194 or the undersigned attorney/George Saile, Esq. (#19,572) at (845) 452 - 5863 if the Examiner has any questions or issues that may be resolved to expedite prosecution and place this Application in condition for Allowance.

Respectively submitted,

A handwritten signature in black ink, appearing to be 'SBA', written over a horizontal line.

Stephen B. Ackerman
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